AMENDMENTS TO THE SPECIFICATION

Please amend the specification as indicated hereafter. It is believed that the following amendments and additions add no new matter to the present application.

Please replace the paragraph starting on p. 8, line 2 with the following amended paragraph:

Certain boundary scan tests are known to be particularly susceptible to ground bounce, as discussed in "In-Circuit Boundary Scan Connection Test Ground Bounce: A Case Study In Prevention & Cures," presented at the NepConWest 2000 Symposium by Raymond Balzar and Philip King; "Ground Bounce Basics and Best Practice," by Phil King available from Agilent Technologies; and U.S. Patent Nos. 6,000,050 and 6,243,843; all of which are incorporated by reference here in their entirety. In general terms, ground bounce is a transient voltage difference between the ground reference points in two parts of a circuit. This typically occurs when current through an impedance (typically, ~~and~~ an inductance and/or resistance) in the power distribution pathway creates a voltage drop across internal circuit nodes that are supposed to have the same voltage value (typically, power or ground). For board testing, this voltage differential usually arises between the test system ground and the device under test. However, ground bounce may also occur during integrated circuit level, or system level, testing.

Please replace the paragraph starting on p. 20, line 15 with the following amended paragraph:

After the appropriate number of clock pulses for shifting the data in FIG. 7G, TMS is moved high in FIG. 7H for two additional clock cycles (rising edges of TCK), which causes the controller to transition through either of the two candidate states shown in FIG. 7I until converging upon the determined UPDATE-DR state shown in FIG. 7J. At this point the actual state of the controller is known, or "determined", to be UPDATE-DR regardless of which of the four undetermined states shown with cross-hatching in FIG. [[4]] 6 was actually induced by the ground bounce.

Please replace the paragraph starting on p. 21, line 1 with the following amended paragraph:

The ground bounce recovery method shown in FIGS. 7A-7J is an improvement over the method shown in FIGS. 5A-5F in that any time the controller 118 transitions through the CAPTURE-DR state (FIGS. 7B and 7F) the test data is reshifted during the next set of clock pulses (FIG. 7C and 7G). Consequently, the appropriate vector data will be loaded in the boundary register(s) 102 before arriving at the determined UPDATE-DR state (FIG. 7J). At that point, if the ground bounce has uniformly affected ~~the all~~ all the devices in the boundary scan chain 210 (FIG. 2), then the system is completely recovered and ready to proceed to the next part of the test.